

We claim:

1. A vibratory patient support system comprising:

at least one bladder that inflates upon receiving a fluid
5 at a greater rate than fluid exiting the bladder, deflates when
the fluid leaves the bladder at a faster rate than fluid
entering the bladder, and has a top surface that allows a user
to apply pressure thereon and a bottom surface;

a vibrational device positioned below and not contacting
10 the top surface of the at least one bladder when the vibrational
device generates a vibrational force;

a fluid control unit that can adjust the volume of fluid in
the at least one bladder;

a vibration control unit that can adjust the vibration
15 forces generated from the vibration device;

wherein when the vibrational device is generating a
vibrational force, the inflation control unit does not allow the
at least one bladder to become deflated to a point wherein the
vibrational device contacts the user.

20 2. The system of claim 1 wherein the vibrational device is
incorporated into the at least one bladder.

3. The system of claim 1 wherein the vibrational device is
below the at least one bladder.

4. The system of claim 1 wherein the fluid in the bladder is a
25 liquid.

5. The system of claim 1 wherein the fluid in the bladder is a
gas.

6. The system of claim 5 wherein the gas is air.

7. The system of claim 1 wherein a temperature pad is used
30 with the system.

8. The system of claim 1 wherein a wave bladder is used with the system.

9. The system of claim 1 wherein the vibratory device receives the fluid.

5 10. The system of claim 1 wherein the fluid's temperature is controlled by a fluid temperature control apparatus.

11. The system of claim 1 further comprising a heating element.

12. The system of claim 1 further comprising a first control unit capable of directing the fluid to the at least one bladder.

10 13. The system of claim 9 further comprising a second control unit capable of receiving the fluid from a first control unit and directing fluid to the vibratory device.

14. The system of claim 13 wherein the second control unit has a double diaphragm system that directs a predetermined quantity
15 of fluid to the vibratory device.

15. The system of claim 9 wherein the vibratory device has at least two chambers.

16. The system of claim 15 wherein each chamber has a shape selected from the group consisting of a finger design, a
20 serpentine design or combinations thereof, to generate a desired vibratory force.

17. A vibratory patient support system comprising:

a first control unit that draws a fluid into the system and directs the fluid to at least a second control unit positioned
25 within the system;

at least one bladder that inflates upon receiving the fluid at a greater rate than fluid exiting the bladder, deflates when the fluid leaves the bladder at a faster rate than fluid entering the bladder, and has a top surface that allows a user
30 to apply pressure thereon and a bottom surface;

a vibrational device positioned below and not contacting the top surface of the at least one bladder when the vibrational device generates a vibrational force, and the vibrational device is designed to receive a fluid from a double diaphragm system contained within a second control unit;

a fluid control system that can adjust the volume of fluid in the at least one bladder;

a vibration control system that can adjust the vibration forces generated from the vibration device;

wherein when the vibrational device is generating a vibrational force, the inflation control system does not allow the at least one bladder to become deflated to a point wherein the vibrational device contacts the user or the top surface.

18. The system of claim 17 wherein the vibrational device is incorporated into the at least one bladder.

19. The system of claim 17 wherein the vibrational device is below the at least one bladder.

20. The system of claim 17 wherein the fluid in the bladder is a liquid.

21. The system of claim 17 wherein the fluid in the bladder is a gas.

22. The system of claim 21 wherein the gas is air.

23. The system of claim 17 wherein the vibratory pad has at least two chambers and each chamber has a design selected from the group consisting of finger shape, serpentine shape and combinations thereof.

24. The system of claim 17 wherein the fluid's temperature is controlled by a fluid temperature control apparatus.

25. The system of claim 17 wherein the first control unit is positioned at the foot of the system and the second control unit is positioned at the head of the system.

26. The system of claim 25 wherein the second control unit
5 receives the fluid from the first control unit.

27. The system of claim 17 wherein the vibratory device has at least two chambers.

28. A method of using vibratory patient support system comprising at least one bladder that inflates upon receiving the
10 fluid at a greater rate than fluid exiting the bladder, deflates when the fluid leaves the bladder at a faster rate than fluid entering the bladder, and has a top surface that allows a user to apply pressure thereon and a bottom surface; a vibrational device positioned below and not contacting the top surface of
15 the at least one bladder and generates a vibrational force; a first control system that can adjust the volume of fluid in the at least one bladder; a second control system that can adjust the vibration forces generated from the vibration device; wherein when the vibrational device is generating a vibrational
20 force, the first control system does not allow the at least one bladder to become deflated to a point wherein the vibrational device contacts the user or the top surface; comprising:

operating the first and second control systems in conjunction with each other to provide the desired vibrational
25 application to the user.

29. The method of claim 28 wherein the vibrational device is incorporated into the at least one bladder.

30. The method of claim 28 wherein the vibrational device is outside the at least one bladder.

31. The method of claim 28 wherein the fluid in the bladder is a liquid.

32. The method of claim 28 wherein the fluid in the bladder is a gas.

5 33. The method of claim 32 wherein the gas is air.

34. The method of claim 28 wherein the vibratory device receives the fluid.

35. A rotating patient support system comprising:

10 a patient support system having at least one bladder that inflates upon receiving the fluid at a greater rate than fluid exiting the bladder, deflates when the fluid leaves the bladder at a faster rate than fluid entering the bladder, and has a top surface that allows a user to apply pressure thereon and a bottom surface; and a first control system capable of adjusting the volume of fluid in the at least one bladder; and

15 a rotational bladder system beneath the patient support system so at least a portion of the patient support system rotates.

20 36. The system of claim 35 having a compression sleeve interconnected to first control system.

37. The system of claim 35 wherein the patient support system further comprises a vibrational device positioned below and not contacting the top surface of the at least one bladder and generates a vibrational force;

25 wherein when the vibrational device is generating a vibrational force, the first control unit does not allow the at least one bladder to become deflated to a point wherein the vibrational device contacts the user..

38. The system of claim 37 wherein the patient support system further comprises a second control unit capable of adjusting the vibration forces generated from the vibration device.

39. A patient support system comprising a control unit;

5 the control unit has a top surface, a bottom surface, and at least three sides positioned between the top and bottom surfaces, the control unit has a lazy-susan turntable unit on at least a portion of two of the at least three sides, the control unit has a pendant that can be positioned on one of the exterior
10 surfaces of the lazy-susan turntable unit which allows the pendant to be positioned on at least two sides of the control unit.